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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/528,712

09/21/2005

Richard Spitz

10191/4061

8450

26646

7590

08/07/2008

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EXAMINER

HUBER, ROBERT T

ART UNIT

PAPER NUMBER

2892

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/528,712	<b>Applicant(s)</b> SPITZ ET AL.	
	<b>Examiner</b> ROBERT HUBER	<b>Art Unit</b> 2892	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 16-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 16-30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Objections*

1. Claim 27 is objected to because of the following informalities: In the reply filed on April 11, 2008, the amendment to the claim recites "*the sublayer of the second layer*", however "*the sublayer*" lacks antecedent basis, and it is unclear and ambiguous to which sublayer the second layer is referring. In an interview with Mr. Aaron Detich on July 22, 2008, Mr. Detich requested an amendment such that "*the sublayer of the second layer*" could be any of the sublayers of the second layer. However, such an amendment would be self-contradicting since the claim states that "*the p-n junction of the first layer with the sublayer of the second layer being formed exclusively (underline added for emphasis) in an interior of the chip and a p-n junction between the first layer and the second sublayer being formed in an edge region of the chip*". If "*the sublayer of the second layer*" could be any sublayer of the second layer, including the second sublayer, then a junction of the first layer with the second sublayer cannot be formed both exclusively on an interior of the chip and in an edge region. It is believed by the examiner that "*the sublayer of the second layer*" of the claim should read "*the first sublayer of the second layer*", since this is supported by the specification and drawings (e.g. figures 2, 3, and 6). Appropriate correction is required.

2. Claim 28 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 16. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is

proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). In an interview with Mr. Aaron Detich on July 22, 2008, Mr. Detich indicated that claim 28 would be cancelled to overcome this objection, and the examiner presumes that this claim will be cancelled.

3. Amendments to the following claims were discussed and agreed upon in a telephone interview with Mr. Aaron Detich on July 22, 2008.

- Claim 16, line 18: after "area" insert --- wherein the first sublayer has a portion with a thickness greater than the second sublayer ---
- Claim 27, line 12: after "in a comparatively narrow edge region of the cross-sectional area" insert --- wherein the first sublayer has a portion with a thickness greater than the second sublayer ---
- Claim 29, line 27: after "area" insert --- wherein the first sublayer has a portion with a thickness greater than the second sublayer ---

4. Claims 17 – 26 depend on claim 16

### ***Conclusion***

5. The application is in condition for allowance except for the following formal matters:

- a. The amendments to claims 16, 27, and 29 need to be added, as discussed in the telephone interview.

b. Claim 27 recites "*the sublayer of the second layer*", which lacks antecedent basis. A prior proposed amendment by the Applicant's Attorney did not render the claim to be definite and clear. The Examiner suggests an amendment such that "*the sublayer of the second layer*" should be "*the first sublayer of the second layer*".

c. Claim 28 is a substantial duplicate of claim 16. In a prior conversation with the Applicant's Attorney, indication by the Attorney was made that the claim would be cancelled.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 25 USPQ 74, 453 O.G. 213, (Comm'r Pat. 1935).

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT HUBER whose telephone number is (571)270-3899. The examiner can normally be reached on Monday - Thursday (9am - 6pm EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thao Le can be reached on (571) 272-1708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2892

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lex Malsawma/  
Primary Examiner, Art Unit 2892

/Robert Huber/  
Examiner, Art Unit 2892  
August 4, 2008